

### **REMARKS/ARGUMENTS**

In the Office Action of June 26, 2007, the Examiner rejected claims 1-4, 8-10, 14, and 18 under 35 U.S.C. §102(e) as anticipated by Stewart et al. (US 204/0114646). Further Examiner rejected claims 5, 7, 11, 13, 15 and under 35 U.S.C. §103(a) as unpatentable over Stewart (US 204/0114646) in view of Burden et al "Numerical Analysis", and claims 6, 12, and 16 over Stewart in view of Chrisman's "Glossary for exploring Geographic Information Systems". Finally, Claim 19 was rejected under 35 U.S.C. §103(a) as unpatentable over Stewart (US 204/0114646) in view of Salo (US Patent 6,393,041).

Applicants appreciate the time and consideration provided by the Examiner in reviewing this application but respectfully traverse the rejections of the claims at least for the following reasons.

#### **Rejection under 35 U.S.C. 102 (e)**

Applicants cancelled Claims 1-8, 10, and 15-18, and amended Claims 9, 11-14 and 19. Specifically, Claim 9 is rewritten to incorporate the limitations of Claim 10. Claims 11-14 are amended to depend from Claim 9, instead of Claim 10. Claim 19 is rewritten and amended to depend from Claims 9 and 11-14.

The method of monitoring and controlling wavelength as claimed in the presently amended independent claim 9 of the present application comprises steps of *calculating* wavelength information on the basis of the measured temperature and bias current (or only the temperature), and the relationship between the laser diode temperature and wavelengths (or between the laser diode temperature, bias current and wavelengths) stored in the storage portion; *comparing* predetermined minimum and maximum threshold values with the *calculated* wavelength; and *lowering* the internal temperature when the result of the comparing step is smaller than or equal to the minimum threshold value; and *raising* the internal temperature by the temperature adjusting portion when the result of the comparing step is larger than or equal to the maximum threshold value.

The support for this amendment is found in FIGS. 8-9 and their associated descriptions in the specification (page 22, line 3 to page 25, line 16). Specifically, according to Claim 9 as amended, the power consumption can be decreased in comparison with a case where the temperature adjustment feature is operated at all times (page 9, lines 14-24, page 10, line 22 to page 11, line 2 in the original specification).

Stewart et al. (US PG Pub. 2004/0114646) discloses a method for calibrating a laser emitter including selecting a target wavelength, adjusting the temperature of the emitter until the difference between an output wavelength of optical signal of the laser emitter and the target wavelength is less than a predetermined value, and then storing the calibration information. Stewart et al. neither disclose nor suggest comparing a calculated (estimated) wavelength with minimum and maximum threshold values to control the wavelength as claimed in Claim 9 of the present application. In contrast, Stewart et al. tries to control the temperature in accordance with the accessed control value, and as a result, the emitted light has a wavelength which is within a predefined tolerance range (see Claim 7, lines 15-17 as recited by the Examiner). Also, while the Examiner recites paragraph 65, lines 4-10 in Stewart et al., the process associated with FIG. 9 in Stewart et al. is not for control but rather for calibration purposes (See paragraph 0059). More specifically, the process in FIG. 9 is to produce a lookup table such as one in FIG. 10, but not to control the wavelength using such lookup table.

Thus, Applicants believe that independent claim 9 as presently amended is novel and allowable over the cited prior art. Claims 11-14, and 19 are dependent upon claim 9, and are allowable if claim 9 is allowed.

#### **Rejection under 35 U.S.C. 103 (a)**

Since this rejection is based on the same prior art reference of Stewart et al., the arguments of the previous section also apply to 103 rejection of claims 11, 13, and 19.

In view of the above, Applicants respectfully submit that all pending claims as amended in this response are allowable, and the application is now in condition for allowance, which allowance is earnestly solicited.

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Amendment dated October 16, 2007  
Reply to Office Action of June 26, 2007

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The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, other-wise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135.

Respectfully Submitted,



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